

Kushal Singh

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EXPERIENCE

Full Stack Engineer

June 2024 – Present

IronRod Health

Bengaluru, Karnataka

- Reduced data extraction time by **60%** and improved patient-data accuracy by building a production-grade HL7 parser in Spring Boot using Java Streams to convert HL7 files into JSON.
- Increased throughput and scalability for healthcare workloads by architecting a configuration-driven data ingestion engine for CSV/JSON inputs (**100k+** records) using Reactor Core streams and PostgreSQL.
- Cut manual configuration effort by **70–80%** by designing dynamic JSON-based configurations and a settings UI to customize data mappings and tables without code changes.
- Reduced repetitive manual operations by **70–80%** while preserving edge-case review by implementing a rules engine automating **200+** patient, device, and inventory workflows as Azure Functions.
- Improved deployment reliability and release speed by leading DevOps efforts with Terraform, Firebase, Azure Functions, Blob Storage, queues, Docker, and YAML-based CI/CD pipelines.

Full Stack Engineer

May 2023 – May 2024

Jellyfish Technologies

Noida, Uttar Pradesh

- Enhanced website's performance by migrating Thymeleaf to React (cut load time by **2000 ms**) and optimizing Electron build size (**75 MB** → **60 MB**), using React, Spring, Spring Boot, and Docker.
- Engineered automation tools for **AWS S3** data structuring leveraging cloud-native patterns to boost fetch performance. Delivered robust, scalable full-stack and desktop solutions across diverse modules.
- Built a **Code Editor** for an HR platform, integrating compilers for multiple languages for coding assessments.

Software Engineer Intern

Nov 2022 – April 2023

Jellyfish Technologies

Noida, Uttar Pradesh

- Internship experience encompassed technologies such as MongoDB, MySQL, Spring, Spring Boot and React.

Backend Development Intern

June 2021 – Sept 2021

QuadB Technologies

Remote

- Optimized code, built **100+ APIs** (including analytical), managed backend tasks and media processing

PROJECTS

Corporate.AI - Corporate Policy & Knowledge Assistant | Github

RAG | Spring AI | Spring Boot | PostgreSQL | pgvector | ReactJS | Apache Tika | Docker

- Built RAG system for secure, context-aware LLM responses with vector search & containerized architecture.
- Automated document ingestion, chunking, and similarity search; frontend streams QA experience using React.

Stock Overflow - Real-Time Decentralized Bidding & Inventory Platform | Github

Spring Boot | Spring Cloud | Kafka | WebFlux | PostgreSQL | MongoDB | Redis | Docker

- Developed reactive event-driven bidding/inventory microservices with Kafka, API Gateway and real-time syncing.
- Achieved low-latency ops, data consistency, scalable Docker deployment and fault-tolerant distributed architecture.

Howdy - Real-Time Chat Application | Github

Spring | Spring Boot | MongoDB | ReactJS | Socket.io | Firebase | Cloudinary | ChakraUI

- Developed real-time chat app with audio/file messages, google auth, notifications and typing features.
- Improved chats with replies, emoji keyboard, group chats, Google login and cross-platform support.

TECHNICAL SKILLS

Programming Languages: **Java, C, C++, JavaScript**

Frameworks & Libraries: **Spring, Spring Boot, Thymeleaf, Microservices, Socket IO, HTML, CSS, Bootstrap, SCSS, Tailwind, Material UI, ReactJS, ElectronJS**

Databases: **PostgreSQL, MySQL, MongoDB, Firebase, Sequelize**

Developer Tools: **Docker, AWS, Azure, Kafka, Kubernetes**

ACHIEVEMENTS

- Achieved highest LeetCode contest rating of **1762**, demonstrating advanced problem-solving skills.

EDUCATION

B.Tech. (CSE) - 8 GPA

Greater Noida Institute of Technology

2019 – 2023

Noida, Uttar Pradesh